CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/165
27 January 1966
Original: ENGLISH

UNITED STATES OF AMERICA

Message dated 27 January 1966 from President Johnson to the Conference of the Eighteen-Nation Committee on Disarmament

"The avoidance of war and particularly nuclear war is the central, common concern of all mankind.

"My country is dedicated to this end. The effort to control, and reduce -- and ultimately eliminate -- modern engines of nuclear destruction is fundamental to our policy. We have, with all mankind, a common interest in acting now to prevent nuclear spread, to halt the nuclear arms race, and to reduce nuclear stocks.

"For this reason, we must press on with our work in Geneva. It is true that our meeting is shadowed by continuing aggression against the people and Government of South Viet-Nam. There are differences among the members of this Conference on Viet-Nam, but these differences make our common interest in preventing nuclear spread and curbing the nuclear arms race all the more important to pursue. Even while our own nation is engaged in necessary resistance to aggression in South-East Asia, it must continue to pursue every avenue for stable peace, both in Viet-Nam and throughout the world. That great general effort has no more important set of goals than those of disarmament, which are the business of this Conference.

"I have instructed the United States delegation to urge upon your meeting the following 7-point programme:

"1. First, let us seek a non-proliferation treaty which, in the words of the United Nations General Assembly is 'void of any loopholes which might permit nuclear or non-nuclear powers to proliferate, directly or indirectly, nuclear weapons in any form.' We are prepared to sign such a treaty, making it applicable to nuclear and non-nuclear countries alike. We are prepared to work with other countries to assure that no non-nuclear country acquires its own nuclear weapons, gains national control over nuclear weapons, achieves the power itself to fire nuclear weapons, or receives assistance in manufacturing or testing nuclear weapons. We are prepared to agree that these things should not be done directly or indirectly, through third countries or groups of countries, or through units of the armed forces or military personnel under any military alliance.

"2. Second, through a non-proliferation treaty and through efforts outside such a treaty, we must continue to secure application of International Atomic Energy Agency or equivalent international safeguards over peaceful nuclear activities. To this end, I urge agreement that all transfers of nuclear materials or equipment for peaceful purposes to countries which do not have nuclear weapons be under IAEA or equivalent international safeguards. At the same time, the major nuclear powers should accept in increasing measure the same international safeguards they recommend for other states.

"Recently, many responsible members of both Houses of the Congress of the United States introduced resolutions dealing with measures to prevent the spread of nuclear weapons. These resolutions are an indication of the importance that the people of the United States attribute to such measures, and to the role that international safeguards should play in them. I fully share these views.

"3. Third, so that those who forswear nuclear weapons may forever refrain without fear from entering the nuclear arms race, let us strive to strengthen United Nations and other international security arrangements. Meanwhile, the nations that do not seek the nuclear path can be sure that they will have our strong support against threats of nuclear blackmail.

"4. Fourth, my country persists in its belief that the perils of proliferation would be materially reduced by an extension of the limited test ban treaty to cover underground nuclear tests. For such an extension, the United States will require only that number and kind of inspections which modern science shows to be necessary to assure that the treaty is being faithfully observed. We call upon those nations truly interested in such a ban to provide to this Committee any improvements in means for the detection and identification of seismic events which their research efforts may have developed.

"5. Fifth, let us seek agreement not to increase, and indeed to reduce, nuclear materials in weapons stockpiles. The US continues to urge a verified halt in the production of fissionable materials for use in weapons. We continue to urge that such a halt be accompanied by the transfer of large quantities of fissionable material to peaceful purposes, under international safeguards. We continue to urge the demonstrated destruction of thousands of nuclear weapons by the US and USSR to produce this fissionable material. We have also stated our willingness, if others

cannot now agree to halting all production of fissionable material for use in weapons, to accept step-by-step reductions of such production by the shutting down of equivalent facilities on a plant-by-plant basis, with the same type of effective inspection applicable to all.

"6. Sixth, as another step to reduce the dangers and burdens of nuclear arms, let us direct our attention to modern, long-range, high-speed carriers of nuclear destruction. I urge continued exploration of the terms and conditions which could make acceptable to all the proposal I put before you in 1964 for a freeze on offensive and defensive strategic bombers and missiles designed to carry nuclear weapons. If progress can be made here, the United States will be prepared to explore the possibility of significant reductions in the number of these delivery vehicles. To facilitate agreement, let us begin now to seek common understanding of some of the issues involved in both these proposals.

"7. Seventh, as we focus on nuclear arms, let us not forget that resources are being devoted to non-nuclear arms races all arpund the world. These resources might better be spent on feeding the hungry, healing the sick and teaching the uneducated. The cost of acquiring and maintaining one squadron of supersonic aircraft diverts resources that would build and maintain a university. We suggest therefore that countries, on a regional basis, explore ways to limit competition among themselves for costly weapons often sought for reasons of illusory prestige. The initiative for arrangements of this kind should, of course, come from the regions concerned. The interested countries should undertake not to acquire from any source, including production of their own as well as importation from others, military equipment which they proscribe. If such arrangements can be worked out and assurance can be given that they will be observed, the United States stands ready to respect them.

"Each of these steps would contribute toward reducing the danger and destruction of war. Each of them would take us further down the path toward our ultimate goal of general and complete disarmament. Yet each of them is possible of achievement today if only all nations have the will.

"The limited test ban treaty lit a candle of hope in the darkness. The gleam of that candle shows the way to a brighter tomorrow if we will but follow. We must move toward it quickly while there is yet time."

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/166
28 January 1966
Original: ENGLISH

UNITED KINGDOM

Message dated 27 January 1966 from Prime Minister Wilson to the Conference of the Eighteen-Nation Committee on Disarmament

The Eighteen Nation Disarmament Committee is resuming its activities at a time when, more than ever before, the world community stands in need of, and urgently expects, progress towards the great objective of arms control and disarmament. The British Government consequently welcomes the fact that the Committee has agreed to resume its work so soon after the conclusion of the disarmament debate in the United Nations General Assembly.

By the resolutions adopted at the recent session of the United Nations General Assembly, the nations demonstrated their support for and trust in the Committee. That they did so must be a matter of deep satisfaction to all delegations; it will also I hope be a spur to renewed efforts in the months ahead. The British Government pledges itself to co-operate untiringly in the search for progress.

In accordance with the wishes expressed by the 20th General Assembly of the United Nations, the Committee will be giving urgent consideration to the working out of an agreement to prevent the further spread of nuclear weapons. This is by general agreement the most pressing need in the disarmament field. I trust that the two draft non-proliferation treaties before the Committee will provide a basis for serious negotiation in order to resolve the differences that stand in the way of agreement.

The Committee will also continue its search for agreement on arrangements to ban nuclear tests in all environments. This would not only be a most valuable achievement in itself, but would also make a vital contribution to our efforts to prevent the further spread of nuclear weapons.

The coming session will, I hope, be marked by fresh efforts to find a basis for a start on real disarmament and also by progress towards a solution of the complex problems involved in an agreement for general and complete disarmament.

I send the Disarmament Committee my best wishes for a constructive and fruitful session.

66-03310

ENDC/167
3 February 1966
ENGLISH
Original: RUSSIAN

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

UNION OF SOVIET SOCIALIST REPUBLICS

Message dated 1 February 1966 from the Chairman of the Council of Ministers of the Union of Soviet Socialist Republics to the Conference of the Eighteen-Nation Committee on Disarmament

On behalf of the Soviet Government, I convey our greetings and wishes for success to the Eighteen-Nation Committee on Disarmament on the occasion of the resumption of its work.

More than forty years ago, on the initiative of V.I. Lenin, the Soviet Union set as a pressing international aim the accomplishment of universal disarmament in order to ensure peace and friendship among nations. True to Lenin's precepts, the Soviet Government has submitted for the Committee's consideration a specific programme for general and complete disarmament, which provides for the complete elimination of armaments and armed forces. It was due to the initiative of the Soviet Union that the General Assembly of the United Nations adopted a resolution on an economic disarmament programme which would make it possible to increase the well-being of all the peoples of the world within a short period of history and would enable countries and peoples which are lagging behind as a result of colonialism to overcome their economic backwardness and to attain the level of modern civilization. That wide disarmament programme is still our programme today and we are sure that, in the struggle against the forces of militarism and aggression, it will become the banner of an ever-increasing number of people who really cherish peace and progress.

Unfortunately, the Eighteen-Nation Committee on Disarmament has not succeeded in achieving any serious results during the period of its existence. The States members of the NATO military-political bloc which are taking part in the Committee's work have not given the Committee a chance to make any progress. However, this should not deprive the States which really want disarmament of their determination to achieve this aim and to continue their struggle both for general and complete disarmament and for the implementation of collateral measures which would clear the way to disarmament.

The Soviet Government would like once again to draw the attention of the members of the Committee to the severe ordeals which the world is undergoing at the present time. For a long time now, the flames of war have been raging in Vietnam, whose freedom-loving people have become the victims of imperialistic intervention which is also threatening the adjacent countries. The aggression in Vietnam is an aggression against all countries and peoples that are defending their freedom and independence and their sovereign right to build their lives according to their own wishes, without any outside interference whatsoever.

The ideas of peace and disarmament are incompatible with a policy of armed interference in the affairs of other countries and peoples. Militarism turns to destructive purposes what might be used for the advancement of mankind and destroys the results of the labour of millions of people.

The Soviet Union, consistently pursuing a policy aimed at consolidating peace and achieving disarmament, has on this occasion also come to the Eighteen-Nation Committee with a specific programme of measures designed to free present and future generations from the burden of armaments.

In the forefront of the work of the Eighteen-Nation Committee at present is the task of accomplishing a series of measures relating to nuclear disarmament.

The Soviet Government insists on the need for the immediate conclusion of an agreement on the non-proliferation of nuclear weapons. Unless an end is put to the proliferation of nuclear weapons throughout the world, the danger of the outbreak of a nuclear war will increase many times over. Yet there are plans for such a proliferation, although they are camouflaged by professions of peaceful intentions. These plans provide for giving access to nuclear bombs to the militarists and revanchists of the Federal Republic of Germany, which openly sets as the main object of its policy the revision of the existing European frontiers and the annexation of the territory of other countries. The peoples, especially the peoples of Europe, are too well aware of the adventurist nature of the German militarists to reconcile themselves to these dangerous plans.

The draft agreement on the non-proliferation of nuclear weapons which the Soviet Union has submitted to the Committee is permeated with a single aim, namely, to block all paths to the further spread of nuclear weapons. It is fully in keeping with the resolution which was adopted by the General Assembly of the United Nations and which expressed the will of the peoples. In order to facilitate agreement on the conclusion

of a treaty, the Soviet Government declares its willingness to include in the draft treaty a clause on the prohibition of the use of nuclear weapons against non-nuclear States parties to the treaty which have no nuclear weapons in their territory

The Soviet Government fully supports the proposal of the Polish People's Republic to establish a denuclearized zone in Central Europe and to freeze nuclear armaments in that area, as well as proposals to establish denuclearized zones in other parts of the world. It is prepared to assume an obligation to respect the status of any denuclearized zones which may be established provided that other nuclear Powers assume similar obligations.

Three years will soon have passed since the conclusion of the international Treaty Banning Nuclear Tests in the Atmosphere, in Outer Space and Under Water. The Soviet Government declares its willingness to reach agreement immediately on the prohibition of underground nuclear tests as well, on the basis of the use of national systems of detection for control over such prohibition.

The time has also come to outlaw the use of nuclear weapons. The General Assembly of the United Nations adopted such a resolution several years ago, when it condemned the use of nuclear weapons as a crime against humanity and called for the conclusion of a special convention. The Soviet Union is prepared to assume immediately an obligation not to be the first to use nuclear weapons, provided that the other nuclear Powers do likewise.

The present world situation also urgently calls for solution of the problem of the elimination of foreign military bases and the withdrawal of foreign troops from the territories of other countries. The events which are now taking place in the world convincingly show that foreign military bases and armed forces in the territories of other countries represent a serious threat to world peace. These bases, which as a rule comprise nuclear weapons, greatly increase the danger of the outbreak of a nuclear war. The establishment of those bases and the stationing of foreign troops in the territories of other countries are indissolubly linked with the preparation and carrying out of military adventures, with the suppression of national liberation movements and with attempts to stifle the freedom and independence of nations. The Soviet Union is of the opinion that the Eighteen-Nation Committee should consider the question of the complete elimination of foreign military bases and the withdrawal of troops from foreign territories, so as to rid the world of these dangerous hotbeds of war, colonialism and aggression.

In order really to put and end to the danger of a nuclear war and to the nuclear armaments race, the Soviet Government proposes that the nuclear Powers should consider the question of carrying out immediately the programme relating to nuclear disarmament. Such disarmament must provide for the destruction, under appropriate international control, of all stockpiles of nuclear weapons accumulated by States, the prohibition of their manufacture, the complete destruction of all nuclear weapon delivery vehicles and the prohibition of their production, and the elimination of military bases in foreign territories. Only such measures, not the elimination of only a few atomic and hydrogen bombs from the vast stockpiles accumulated by States, can free the peoples from the threat of a nuclear war.

We must bear in mind the fact that the high-sounding phrases about disarmament uttered by certain governments are scarcely, if at all, compatible with the policy which they are actually carrying out. These governments speak of disarmament and at the same time are increasing their military budgets, fostering war psychosis and creating ever greater international tension in the world situation. The Soviet Government considers that one of the most important tasks of the Disarmament Committee should be to work out effective measures which would lead to the reduction of the military budgets of States and, in conjunction with other similar measures, would help to normalize relations between nations.

In submitting for the Committee's consideration these constructive and thoroughly well-pondered proposals, the Soviet Government bases itself on the assumption that they could serve as a basis for further progress along the path towards disarmament.

The Soviet Union, like other peace-loving countries, is fully determined to continue the struggle against aggression and for the strengthening of peace, national freedom and independence and the peaceful co-existence of States, irrespective of their social systems. On this basis, we shall take an active part in the work of the Disarmament Committee. Our representatives have been instructed to defend the position of the Soviet Union firmly and to explain it patiently. At the same time, they will be prepared to study and to take into consideration without prejudice the proposals of any other delegation, if these proposals are really aimed at furthering the case of disarmament.

Through joint efforts, the nations can and must succeed in putting an end to aggression, relaxing international tension, and solving the problems of disarmament.

A KOSYGIN
Chairman of the Council of
Ministers of the USSR

Moscow,
1 February 1966.

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/168
8 February 1966
ENGLISH
ORIGINAL: RUSSIAN

UNION OF SOVIET SOCIALIST REPUBLICS

Letter dated 7 February 1966 from the Representative of the Union of Soviet Socialist Republics to the Special Representative of the Secretary-General of the United Nations

On 7 February I received a letter, addressed to me as co-Chairman of the Eighteen-Nation Committee on Disarmament, from the Deputy Minister for Foreign Affairs of the German Democratic Republic, Mr. Georg Stibi. The letter accompanies a Statement of the Government of the German Democratic Republic on the Conclusion of a Treaty on the Strict Prohibition of the Proliferation of Nuclear Weapons. It also contains a request to bring the aforementioned Statement of the Government of the German Democratic Republic to the notice of all the States participating in the Committee.

I request you to arrange for the aforementioned Statement of the Government of the German Democratic Republic, which has a direct bearing on the problem of disarmament, to be circulated by the Secretariat as an official document of the Eighteen-Nation Committee on Disarmament.

(signed) S.Tsarapkin

Representative of the USSR
in the Eighteen-Nation Committee on
Disarmament

66-04561

Geneva, 7 February 1966

Mr. S.K. Tsarapkin,

Co-Chairman of the Eighteen-Nation Committee
on Disarmament,

Geneva.

Sir,

On the instructions of the Government of the German Democratic Republic, I have the honour to transmit to you a Statement of the Government of the German Democratic Republic addressed to the Eighteen-Nation Committee on Disarmament, and request you to bring this document to the attention of all the States members of the Committee.

The questions raised in this document have a direct bearing on the problems with which the Eighteen-Nation Committee on Disarmament is directly concerned and, in particular, on the question of concluding a treaty on the strict prohibition of the further proliferation of nuclear weapons.

Accept, Sir, the assurances of my highest consideration.

(Signed) Stibi

Deputy Minister for
Foreign Affairs

Statement 1/

of the Government of the German Democratic Republic to the Eighteen-Nation Committee on Disarmament on the Conclusion of a Treaty on the Strict Prohibition of the Proliferation of Nuclear Weapons

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The Government of the German Democratic Republic welcomes with genuine satisfaction that the Twentietn Session of the United Nations General Assembly has directed the Eighteen-Nation Committee on Disarmament to discuss as an urgent problem the non-proliferation of nuclear weapons and to prepare the concluding of an international treaty banning the proliferation of nuclear weapons.

The Government of the German Democratic Republic is fully convinced that the conclusion of a world-wide treaty banning the proliferation of nuclear weapons, without any loop-holes and precluding any form of dissemination of nuclear weapons both direct and indirect, would fully conform with the peace efforts of the peoples and their desire for lasting security. However, there are serious obstacles blocking the way towards a speedy implementation of the Resolution of the United Nations General Assembly.

Unfortunately, the Governments of the United States of America and the West German Federal Republic insist upon establishing a nuclear strike force within NATO which will inevitably lead to a proliferation of nuclear weapons, or upon creating some other organisation which will extend the right of control over nuclear weapons to the present non-nuclear states. It is particularly the demands of the Government of the West German Federal Republic for a share in the control over nuclear weapons, or participation in a NATO nuclear strike force, which cause concern among the peoples and prevent the conclusion of an international non-proliferation treaty.

For historical reasons the peoples and peace-loving governments distrust the West German claims for a share in the control or for direct control over nuclear weapons. These claims all the more evoke apprehension since the West German Government is the only European government which is once again making territorial claims on other states - just as German imperialism between the two world wars. The gravity of such apprehensions cannot be extenuated by appealing to an alleged right to military equality within NATO, either.

1/ Translation provided by the USSR delegation

Long before Hitler came to power, the army and the diplomats in the Weimar Republic demanded "military equality for Germany on principle," which, unfortunately, was conceded by Great Britain, the USA, France, and Italy in December 1932. Even then the German army and diplomats made assurances that they would only make limited use of their military equality and would be satisfied with a few specimen tanks, aircraft and heavy artillery. Hitler profited from this policy of the Weimar Republic when preparing his immeasurable war crimes. It is an inexcusable crime just as much against the German people as world peace to renew, after three and a half decades, the demands for "military equality on principle" because it is the demand for a share in the control over nuclear weapons, or even a limited possession of nuclear weapons, and serves to prepare a third world war - a nuclear world war.

On account of the bitter historical experiences which must be a permanent warning to all peoples of the world, the Government of the German Democratic Republic holds the view that the two German states are under special obligation, in accordance with the Resolution of the Twentieth Session of the United Nations General Assembly (2028/XX), "to take all necessary steps for the early conclusion of a treaty preventing the proliferation of nuclear weapons."

Therefore, the Government of the German Democratic Republic has appealed anew to the Government of the West German Federal Republic, demanding:

Let us as Germans in the two German states renounce any kind of possession and power of control over nuclear weapons!

Let us as Germans make a joint contribution to help remove the obstacles that still stand in the way of the conclusion of a world-wide non-proliferation treaty!

Let us join in making a first step towards disarmament and thus towards a rapprochement between the two German states with a view to national reunification, by renouncing nuclear weapons!

The Government of the German Democratic Republic solemnly declares to the Eighteen-Nation Committee on Disarmament that it is ready to enter into such a commitment, binding under international law, on the renunciation of nuclear weapons, provided that the West German Government expresses the same readiness.

At the same time, the Government of the German Democratic Republic calls on the Government of the West German Federal Republic to make a similar statement to the Eighteen-Nation Committee on Disarmament and thus remove an essential obstacle which is preventing a successful completion of the preparations for a strict world-wide non-proliferation treaty.

In making this proposal to the Government of the West German Federal Republic, the Government of the German Democratic Republic at the same time calls upon the nuclear powers, in so far as they have nuclear weapons on German soil, to withdraw these nuclear weapons from German territory and in future keep it free of nuclear weapons.

The Government of the German Democratic Republic expresses the expectation that, if the two German states renounce nuclear weapons and the foreign nuclear weapons are removed from German territory, the Eighteen-Nation Committee on Disarmament and the General Assembly of the United Nations will bring their influence to bear on all nuclear powers so that the German people is given firm and lasting guarantees that German soil, German towns and villages will never become targets of nuclear weapons.

Such a twofold safeguarding for Central Europe, the focus of two world wars, against the danger of a nuclear war will be an inestimable contribution towards general disarmament and the preservation and safeguarding of world peace.

The Government of the German Democratic Republic renews its assurance that it will do everything in its power to contribute to a successful solution of the tasks that have been entrusted to the Eighteen-Nation Committee on Disarmament by the United Nations General Assembly with a view to bringing about general disarmament and guaranteeing world peace.

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/169
17 February 1966
ENGLISH
Original: RUSSIAN

UNION OF SOVIET SOCIALIST REPUBLICS

Aide-memoire from the Soviet Government to the Government of the United States of America, dated 16 February 1966

According to official statements of the United States Government and reports in the Press, a United States B-52 bomber carrying nuclear weapons crashed on 17 January 1966 over the Spanish coast. As a result of this accident, four hydrogen bombs, each of them a hundred times more powerful than the bomb dropped on Hiroshima and Nagasaki, fell on Spanish territory and the coastal waters of the Mediterranean Sea. The detonator of at least one of these bombs exploded, and radioactive substances were released. There is a danger of radioactive contamination also from the other hydrogen bomb, which is lying at the bottom of the Mediterranean Sea. A large and densely populated area is threatened with radioactive contamination. Naturally, the peoples are profoundly perturbed by all these facts.

The Soviet Government draws attention to the fact that the activities which have resulted in the aforesaid events are at variance with the generally accepted principles and standards of international law and with those obligations which the United States Government has assumed under international treaties and agreements in force, and, in particular, under the 1963 Moscow Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and under Water. As is well known, the principal aim of that Treaty was to prevent the radioactive contamination of the atmosphere, of outer space and of the waters of our planet. Accordingly, the parties to the Moscow Treaty, including the United States, declared their determination "to put an end to the contamination of man's environment by radioactive substances". Yet the southern coast of Spain, and also the adjacent maritime waters, have now been exposed to radioactive contamination from United States nuclear weapons.

The contamination of the sea cannot be confined to Spanish coastal waters, which are not isolated from the waters of the high seas. A very real threat of contamination of the high seas has been created, which is contrary to the principle governing the high seas long since established in international relations. Thus the 1958 Convention of the High Seas, signed and ratified by the United States, which requires each State to take measures "for the prevention of pollution of the seas or air space above, resulting from any activities with radioactive materials or other harmful agents", has been violated. How did all this come about? It may be said to have been a mine accident. But it is permissible to put the question: What kind of policy is this, what kind of activities of the military authorities are these, which lead to such dangerous accidents? It is enough to put this question to perceive that the practice itself of flights by United States aircraft carrying nuclear weapons over the territory of other countries and over the high seas involves the possibility of such consequences. No one can guarantee that if such flights continue, similar consequences can be excluded in the future.

United States Government officials have themselves repeatedly referred to the danger of a war breaking out as a result of miscalculation or an incident; yet the flights of United States bombers with nuclear weapons on board involve the danger of precisely such a situation.

The Soviet Government has repeatedly warned the United States Government of the dangers connected with the flights of bombers carrying nuclear weapons. The United States Government, however, has not heeded these warnings, and the flights of United States aircraft continue as before. What happened over Spain shows how well-founded were the warnings given by the Soviet Union.

What must be done in order to preclude any possibility of a repetition of such dangerous incidents?

It is quite clear that for this purpose it is necessary to put an end to flights by aircraft with nuclear and hydrogen bombs beyond the limits of national borders. These flights are a danger above all for the peoples of those countries whose governments permit the United States to use their air space for such purposes, countries which are enmeshed in the trammels of military obligations towards the

United States. In addition, the activities of the United States create a threat to the safety also of the peoples of other countries. The fact that some governments are prepared to reconcile themselves to such flights does not alter the situation in the slightest. It is inadmissible that the safety of many peoples, not to mention the peoples of their own countries, should depend on certain governments that give their consent to such flights.

In drawing the United States Government's attention to all the foregoing, the Soviet Government considers that the immediate discontinuance of flights by aircraft carrying nuclear weapons beyond the limits of national borders and the strict observance of the international agreements prohibiting the radioactive contamination of man's environment answer to the interests of the prevention of dangerous accidents and incidents likely to involve grave consequences for peoples, and to the interests of peace.

ENDC/169/Corr.1
21 February 1966
ENGLISH only

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

Corrigendum to the Aide-memoire from the Soviet Government to the Government of the United States of America, dated 16 February 1966

Page 2, line 9, replace the words: "a mine accident" by the words: "a mere accident".

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/170
28 February 1966
Original: ENGLISH

UNITED STATES OF AMERICA

Aide Memoire from the United States Government, dated February 25, 1966, in reply to the Soviet Government

The Government of the United States rejects the allegations made by the Soviet Government in its Aide Memoire of February 16, 1966. The Government of the USSR must be aware -- or could easily have ascertained -- that no nuclear weapon test, no nuclear explosion of any kind, and no radioactive pollution of the sea were involved in the unfortunate accident over the coast of Spain. Consequently, there is no question of a "violation" or of "actions in conflict with" either the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, or of the 1958 Geneva Convention on the High Seas, or of the principle of freedom of the high seas. Accusations to this effect by the Soviet Government are therefore without any foundation.

It is common knowledge that flights of US military aircraft are carried out with the agreement of nations of the free world and for the express purpose of reinforcing their collective security against the threat posed by the huge nuclear forces of the Soviet Union, including its many bomber aircraft. Our policies and practices designed to meet this nuclear threat have been adopted only after the most careful assessment of security requirements and after provision of necessary safeguards.

It is not surprising that the Government of the USSR is opposed to military security measures undertaken in defence against the threat of its armed power, or that it should attempt to limit or reduce such defence. It is, however, a matter of deep regret that the Soviet Union should be willing to distort the meaning of international treaties to suit the purpose of a propaganda campaign to that end. It seems clear that if the Soviet Government had been genuinely concerned about possible violations of international agreements and law, it would have requested, and awaited, a reply and clarification from the United States Government instead of resorting to tactics designed to advance purely propaganda objectives.

cdc.66-165
66-06084

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/171
1 March 1966
Original: ENGLISH

ETHIOPIA

Message from His Imperial Majesty Haile Selassie I to the Conference of the Eighteen Nation Committee on Disarmament

We have learnt that His Excellency, the Chairman of the Council of Ministers of the U.S.S.R. has addressed a message to your Commission signifying the willingness of the U.S.S.R. Government to engage itself not to be the first to use nuclear weapons against non-nuclear states parties to the treaty, which have no nuclear weapons in their territory and accordingly requesting other nuclear powers to do the same. We had also learnt that the President of the United States had declared to the nations that do not seek the nuclear path an assurance that they will have the strong support of the United States against nuclear blackmail, and proposing to strengthen the United Nations and other international Security arrangements. In view of the fact that the present nuclear possession and proliferation could be a serious danger to the security of mankind, we believe that such a commitment against the threat or use of nuclear weapons, by all nuclear powers, would help to make a great step forward in the attempt to reach an agreement on disarmament.

We therefore appeal to the Committee to give serious consideration to the proposal to having a joint resolution to include all the Nuclear Powers in accordance with the principles set out by the United Nations resolution for a non-proliferation treaty.

66-06079

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/172
8 March 1966
Original: ENGLISH

UNITED STATES OF AMERICA

Working Paper on Transfer of Fissionable Material Obtained by the Destruction of Nuclear Weapons

I. INTRODUCTION

A. This paper describes the destruction of nuclear weapons and transfer of contained fissionable material to peaceful uses under international safeguards.

B. This proposal for the destruction of nuclear weapons is linked to the United States proposal for a cutoff of production of fissionable materials for use in weapons, and would implement the transfer of fissionable material from past production to peaceful purposes.

C. The illustrative quantities of U-235 of weapons grade discussed before the ENDC on February 13, 1964 (ENDC/PV 166) are reaffirmed by the United States. In addition, the plutonium contained in the destroyed weapons would also be transferred to peaceful uses.

II. NATURE OF DESTRUCTION

A. The United States of America and the Union of Soviet Socialist Republics would each agree to transfer highly enriched uranium* and plutonium obtained from nuclear weapons destroyed for that purpose to peaceful purposes under IAEA or similar safeguards.

B. The United States of America would destroy a sufficient number of nuclear weapons to obtain 60,000 kg of U-235, and the Union of Soviet Socialist Republics would destroy a sufficient number of nuclear weapons to obtain 40,000 kilograms of U-235 for this transfer.

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* A minimum assay of ___% by weight would be counted toward the agreed quantities according to the amount of U-235 contained in the metal.

cdc.66-205
66-07651

C. Plutonium from the destroyed weapons in the amount of not less than _____kg on the part of the US and not less than _____kg on the part of the USSR would be obtained from this transfer. (Actual amounts to be determined and inserted during negotiations.)

D. The nuclear weapons to be destroyed would be transported to designated depots for disassembly, removal of fissionable material, and destruction of the remaining components. The destruction of these weapons would be demonstrated to nationals of both parties and to neutral observers in accordance with arrangements for such demonstration set forth in a Technical Annex to the document of agreement. To be acceptable, demonstration procedures would not compromise information classified in the interest of the national security of the participants or be likely to lead to the proliferation of nuclear weapons technology.

E. The participation of other nuclear powers would be invited, but such participation would not be considered essential to the initial agreement presented above.

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/173
5 April 1966

ENGLISH
Original: RUSSIAN

UNION OF SOVIET SOCIALIST REPUBLICS

Letter dated 2 April 1966 from the Representative of the Union of Soviet Socialist Republics to the Special Representative of the Secretary-General of the United Nations

On 24 March 1966 I received a letter, addressed to me as Representative of the USSR and co-Chairman of the Eighteen-Nation Committee on Disarmament, from the officers of the World Federation of Trade Unions, together with a memorandum addressed by the World Federation of Trade Unions to the Eighteen-Nation Committee on Disarmament.

I request you to arrange for the aforementioned memorandum from the World Federation of Trade Unions on the problem of disarmament to be circulated by the Secretariat as an official document of the Eighteen-Nation Committee on Disarmament.

(signed) A. Roshchin.

Representative of the USSR
in the Eighteen-Nation Committee
on Disarmament.

cdc.66-312
66-10523

Geneva, 24 March 1966

Your Excellency,

Pursuant to a decision of the fifty-first session of the Executive Bureau of the World Federation of Trade Unions instructing us to transmit to the United Nations Conference on Disarmament a memorandum concerning the position of our Federation, which supports the application of a real disarmament policy, we have the honour to transmit the said memorandum to you herewith.

We have no doubt that you will give your very closest attention to the request, formulated by WFTU in the name of the workers of the whole world, that the Governments of the member nations of the Eighteen-Nation Committee, as it has been called, should orient their work towards positive decisions, so as to put a stop to the armaments race that is now proceeding and lay the foundations for a genuine and progressive reduction in armaments throughout the world.

Accept, Excellency, the assurances of our highest consideration.

Renato BITOSSI
President, WFTU.

Louis SAILLANT
General Secretary, WFTU.

Luis PADILLA
Secretary, WFTU.

MEMORANDUM OF THE WORLD FEDERATION OF TRADE UNIONS
TO THE CHAIRMAN
OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

The World Federation of Trade Unions has on several occasions approached various international institutions, including the United Nations, and the Disarmament Conference itself at previous meetings, to demand the application of a genuine disarmament policy. Expressing the aspirations of the workers and trade unions of all countries, the WFTU declared itself in favour of a ban on nuclear weapons and the cessation of all nuclear tests, against the proliferation of weapons of mass extermination and for the liquidation of military bases on foreign soil.

Recently, the 6th World Trade Union Congress, after noting that "the stockpiling of nuclear weapons and of weapons of mass destruction creates a particularly dangerous situation", once more called on all the workers to act in order "to impose universal and complete disarmament under international control", since "the fight for peace is more than ever the common task of the workers and trade unions of the whole world".

Pursuing this policy, which is the continuing line of action of the World Federation of Trade Unions, the Executive Bureau of the WFTU, when it met in Prague from 28 February to 2 March 1966, decided to approach the Disarmament Conference and call upon it once more on behalf of the workers and trade unions of the world to take practical steps in favour of disarmament and against the atomic danger. Recent events, which illustrate most dramatically the risks arising for peace and humanity as a result of the policy of cold war and nuclear armament, make such action the more urgent.

For the past one-and-a-half months, public opinion has been following with great anxiety the efforts made to recover the thermonuclear weapons and other atomic devices which fell in the vicinity of the Spanish village of Palomares, following the collision of a United States B-52 bomber with a refuelling plane. Other accidents of this nature have already occurred on previous occasions both in the United States and in other regions flown over by strategic B-52 bombers carrying nuclear weapons. The incident at Palomares is the thirteenth.

The United States Department of State has officially admitted that two H-bomb detonators, which fell near Palomares, exploded. It was by pure chance that others did not explode as well. This whole area of Spain was therefore in danger of being destroyed as a result of the explosion of a bomb a thousand times more powerful than those of Hiroshima and Nagasaki. The State Department admits that one of the thermonuclear bombs which fell into the sea has not been found. Fishing has been prohibited within a ten-mile radius. The H-bomb covers split open on reaching the ground, releasing particles of plutonium 239 and uranium, which were scattered over the earth and contaminated the crops. The harvest had to be destroyed. According to a Spanish announcement, more than 2,000 persons were exposed to radiation. Other effects will undoubtedly be discovered sooner or later. Despite repressive action by the Franco police, the workers and the people of Spain are manifesting their legitimate indignation; they accuse their Government of concealing the truth and of complicity, and, by their mass campaigns and documents backed by thousands of signatures, they are expressing their determination to prohibit flights of American strategic bombers over Spain and to liquidate the foreign bases on their national territory.

The workers and trade unions of the world share the anger and indignation of the workers and people of Spain, for they feel that the danger constituted by flights of bombers carrying nuclear weapons over foreign territory is a matter of direct concern to all.

This constant threat to international security can quite obviously lead to war through some sort of accident. A catastrophe like that which happened in Spain might happen any day in some other place, sowing death and destruction, and unleash a conflict with unforeseeable consequences.

In view of this situation, the World Federation of Trade Unions, speaking on behalf of the workers, both men and women, and of the trade unions it represents, calls on the Disarmament Conference to take the necessary steps to ban flights over foreign territories by strategic bombers carrying nuclear weapons.

Concerned for the maintenance and safeguarding of peace, which is the workers' most precious boon, the World Federation of Trade Unions supports the workers and trade unions of the whole world in their resolute opposition to the spread of nuclear weapons. It draws the attention of the Conference to the danger constituted by

attempts to give atomic weapons to a State like the Federal Republic of Germany, the only State which openly advances territorial claims in Europe, and in which highly-placed political and military leaders are indulging with increasing frequency in statements and appeals which are themselves at the same time an expression of the revanchist spirit and an attempt to render impossible the achievement of any permanent security for the peoples and States of Europe.

They are demanding a revision of European frontiers, and more particularly the attachment of the German Democratic Republic to the Federal Republic of Germany. The conversion of the Federal Republic of Germany into a nuclear Power is consequently a means of furthering a policy of strength, territorial claims and highly dangerous annexation. In this connexion, the passage in President Johnson's statement of 7 May 1965 in which, alluding to the German Democratic Republic, he said that "the shame of the Eastern Zone must be ended" is disturbing.

In addition, there was a meeting in Washington recently of the nuclear planning sub-committee of a special committee set up in NATO last November on the proposal of Mr. MacNamara, the United States Secretary of Defence. A representative of the Federal Republic of Germany plays a prominent part in this body.

The World Federation of Trade Unions is following these developments very carefully.

Born of the desire for peace expressed by the workers of the whole world immediately after the war, the WFTU included in its Constitution as a fundamental task the endeavour to "combat war and the causes of war and to work for a stable and lasting peace".

The problem of the rearmament of the Federal Republic of Germany has been a matter of concern to the WFTU for a long time.

The Programme of Action adopted by the 5th World Trade Union Congress in 1961 called for a solution of the German problem by way of negotiations in order to eliminate a dangerous hotbed of provocation and international tension in the heart of Europe and to foil the dangerous, warmongering and revenge-seeking plans which are being revived in the ruling circles of Western Germany.

Proceeding from this situation, the 6th World Trade Union Congress affirmed that the West German policy is causing great concern, which is justified by history.

In taking up this position against West German rearmament, the World Federation of Trade Unions is defending the interests of the German working class as well as the aspirations of its trade unions.

The World Federation of Trade Unions considers that the two German States must renounce the right to obtain nuclear weapons or to dispose of them in any form.

That is also the wish of the workers in the two German States. It is generally known that, when it met in Hanover in 1962, the 6th Congress of the Deutscher Gewerkschaftsbund (DGB) (Confederation of German Trade Unions) (Federal Republic of Germany) passed a resolution which called for the banning and destruction of all nuclear, bacteriological and chemical weapons by an international treaty, and for the cessation of all nuclear tests. In 1964, in an appeal entitled "Never another war" the DGB reaffirmed this position.

The Freier Deutscher Gewerkschaftsbund (FDGB) (Free Confederation of German Trade Unions), which speaks for the workers of the German Democratic Republic, has been following a peace-loving policy ever since its foundation, in keeping with the decisions of the world trade union movement in 1945.

True to its commitments towards the workers of the whole world, the World Federation of Trade Unions shares the desire, stated by the United Nations General Assembly, for an international agreement on the non-proliferation of nuclear weapons and on disarmament.

Anxious to do its utmost to remove the danger of a new conflict which would inevitably assume the form of a thermonuclear war, the World Federation of Trade Unions has already taken a stand, and once again speaks out in support of the proposals for nuclear-free zones in Central Europe and in other parts of the world, and particularly in Africa.

All these questions are now under examination by the Eighteen-Nations Committee. We are waiting to hear positive results.

On behalf of the 138 million workers it represents, the World Federation of Trade Unions feels bound to inform the Committee of its position on these problems.

It calls on the Eighteen-Nation Committee to do everything possible to arrive at concrete conclusions as soon as possible, so as to pave the way to an era of gradual and controlled disarmament, in accordance with the aspirations already expressed by many Governments, both those which are members and those which are not members of the Eighteen-Nation Committee.

President of the WFTU:

Renato BITOSSI

General Secretary of the WFTU

Louis SAILLANT

Geneva, 23 March 1966

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/174
14 April 1966
Original: ENGLISH

UNITED STATES OF AMERICA

Working paper
on
an inspection method for verifying
the status of shutdown plutonium production reactors

I. Introduction

This paper describes technical aspects of one possible method of determining that reactors for the production of plutonium that are shutdown in compliance with an arms control of disarmament agreement have remained so between visits of inspectors. This method is presented as an example and is intended to encourage discussion of this and other possible methods for such verification.

II. Description of the technique

The shutdown monitoring system basically includes four simple concepts:

1. Target material placed in a reactor case will become radioactive in the event of reactor operation.

2. A wire or tape fixes the position of the target material within the reactor so as to be subject to the reactor's neutron flux, if any.

3. The tape is so fabricated that it is unique and hence any substitution of the tape can be detected.

4. An exterior seal at each end of the channel provides the inspection team assurance that the wire or tape will have remained in its fixed position between inspections.

In the system, the target material, e.g. cobalt, is contained within the wire or tape. The latter is designed to reveal any attempt to break and rejoin it. Special fittings have been designed to enhance the integrity of the juncture of the safing band and the exterior seal(s).

An international inspection team of two professional-level and two technician-level specialists can install the system without damage to the reactor given about one

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66-11375

week's access to the operating face(s) of the reactor. Return inspections, spaced several months apart and involving checking of seals and replacement of some of the monitor-tapes, can be carried out in one or two days.

The target material will be activated approximately linearly with exposure to neutrons. The radioactivity, if any, can be read with standard radiation detection meters.

The in-reactor safing bands establish a known fixed location for the neutron detector material within the reactor core. To insure that removal would be detected, any attempt to repair a break or cut in the band must be discernible to the inspection team.

The primary device developed for this purpose is a bimetallic wire formed by the co-extrusion of a jacket material over a lower-melting-point core material. The latter is introduced in wire form together with small quantities of other materials in finer wires. The materials used are natural cobalt for neutron sensitivity and tungsten for X-ray opaqueness. The co-extruded wire is flattened to a tape a few millimeters thick. An X-ray pattern of the random orientation of the fine tungsten strands within the band produces a "fingerprint". The different melting points of the core and the jacket of the bimetallic band will cause flaws to be introduced if repair of cuts is attempted.

The function of the exterior seals is to provide assurance that the safing band could not be removed in its entirety without costly disassembly of the reactor itself. A proper choice of location for installing the safing tape can maximize the effort that would be required to disassemble the reactor core.

The concept employed is that of enclosing randomly oriented metallic particles in the exterior seals in a three dimensional form not subject to reproduction. A seal is formed by mixing the powder and catalyst of a commercially available epoxy resin. The syrupy translucent material is then formed around metal turnings and other random particles. The "fingerprint" of the epoxy seal is recorded by photography and radiography from two or more aspects. Before- and after- photographs and radiographs are compared to determine that the seal has not been tampered with.

The Host Nation would provide a liner tube of reasonably noncorrosive metal extending completely through the reactor core and protruding a few centimeters beyond the exterior hardware of both process faces. This provides protection to the reactor and facilitates installation of safing bands, seals, and a flat safing plate "washer" at each end of the tube. The washer covers the area of the surrounding lattice positions radially in each direction and protects the reactor face as well as provides an orientation base for the seal and subsequent photographs and radiographs of it.

Other variations of safing bands and seals are feasible and worthy of consideration as are quite different verification techniques. It is believed, however, that the techniques described can serve as an adequate example of a solution to the problem of verification of shutdown production reactors.

April 14, 1966.

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE
ON DISARMAMENT

ENDC/175
5 July 1966
ORIGINAL: ENGLISH

CANADA

Prevention of the Spread of Nuclear Weapons

Tabular Comparison of the USA Draft Treaty to Prevent the Spread of Nuclear Weapons (ENDC/152 and ENDC/152/Add.1) and the USSR Draft Treaty on the Non-Proliferation of Nuclear Weapons (ENDC/164)

eds. 66-552

66-18427

USA Draft Treaty	Agreed Text	USSR Draft Treaty
Preamble: The Parties to this Treaty, Desiring to promote international peace and security, Desiring in particular to refrain from taking steps which will extend and intensify the arms race, Believing that the further spread of nuclear weapons will jeopardize these ends, Recalling that Resolution 1665 (XVI) of the General Assembly of the United Nations urges all States to co-operate for these purposes, Desiring to achieve effective agreements to halt the nuclear arms race, and to reduce armaments, including particularly nuclear arsenals, Reaffirming their determination to achieve agreement on general and complete disarmament under effective international control, Have agreed as follows:		Preamble: The States concluding this Treaty, hereinafter referred to as "the Parties to the Treaty", Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples, In conformity with the resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of the wider dissemination of nuclear weapons, Desiring the earliest possible attainment of agreement on the complete prohibition and elimination of all types of nuclear weapons within the framework of general and complete disarmament under strict international control, Desiring to further the easing of international tension and the strengthening of trust between States, thus facilitating the conclusion of a treaty on general and complete disarmament, Have agreed as follows:

USA Draft Treaty	Agreed Text	USSR Draft Treaty
Article I: Each of the nuclear-weapon States party to this treaty undertakes: 1. Not to transfer nuclear weapons into the national control of any non-nuclear-weapon State, or into the control of any association of non-nuclear-weapon States. 2. Not to provide to any non-nuclear-weapon State or association of such States: (a) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons; or (b) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons. 3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons. 4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third States or associations of States, or through units of the armed forces or military personnel of any State, even if such units or personnel are under the command of a military alliance.		Article I: 1. Parties to the Treaty possessing nuclear weapons undertake not to transfer such weapons in any form - directly or indirectly, through third States or groups of States - to the ownership or control of States or groups of States not possessing nuclear weapons and not to accord to such States or groups of States the right to participate in the ownership, control or use of nuclear weapons. The said Parties to the Treaty shall not transfer nuclear weapons, or control over them or over their emplacement and use, to units of the armed forces or military personnel of States not possessing nuclear weapons, even if such units or personnel are under the command of a military alliance. 2. Parties to the Treaty possessing nuclear weapons undertake not to provide assistance - directly or indirectly, through third States or groups of States - to States not at present possessing nuclear weapons in the manufacture, in preparations for the manufacture or in the testing of such weapons and not to transmit to them any kind of manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons.

USA Draft Treaty	Agreed Text	USSR Draft Treaty
Article II: Each of the non-nuclear-weapon States party to this treaty undertakes: 1. Not to manufacture nuclear weapons, and not to seek or to receive the transfer of nuclear weapons into its national control or into the control of any association of non-nuclear-weapon States of which it is a member. 2. Not to seek or receive, and not to provide, whether alone or in any association of non-nuclear-weapon States: (a) assistance in the manufacture of nuclear weapons, in preparations for such manufacture, or in the testing of nuclear weapons, or; (b) encouragement or inducement to manufacture or otherwise acquire its own nuclear weapons. 3. Not to take any other action which would cause an increase in the total number of States and associations of States having control of nuclear weapons 4. Not to take any of the actions prohibited in the preceding paragraphs of this Article directly, or indirectly through third States or associations of States, or through units of its armed forces or its military personnel, even if such units or personnel are under the command of a military alliance.		Article II: 1. Parties to the Treaty not possessing nuclear weapons undertake not to create, manufacture or prepare for the manufacture of nuclear weapons either independently or together with other States, in their own territory or in the territory of other States. They also undertake to refrain from obtaining nuclear weapons in any form - directly or indirectly, through third States or groups of States - for purposes of ownership, control or use and shall not participate in the ownership, control or use of such weapons or in testing them. The said Parties to the Treaty shall not seek to acquire control over nuclear weapons or over their emplacement and use for units of their armed forces or personnel thereof, even if such units or personnel are under the command of a military alliance. 2. Parties to the Treaty not possessing nuclear weapons undertake not to obtain or seek to obtain, from States possessing nuclear weapons, assistance in the manufacture of such weapons or relevant manufacturing, research or other information or documentation which can be employed for purposes of the manufacture or use of nuclear weapons. Article III: The Parties to this Treaty shall refrain from offering any support, encouragement or inducement to States seeking to own, manufacture or exercise control over nuclear weapons.

USA Draft Treaty	Agreed Text	USSR Draft Treaty
Article III: Each of the States Party to this Treaty undertakes to cooperate in facilitating the application of International Atomic Energy Agency or equivalent international safeguards on all peaceful nuclear activities.		
Article IV: In this treaty (a) "Nuclear-weapon State" means a State controlling nuclear weapons as of ..... (date) (b) "Non-nuclear-weapon State" means any State which is not a "nuclear-weapon-State". (c) "Control" means right or ability to fire nuclear weapons without the concurrent decision of an existing nuclear-weapon State. (d) "Nuclear weapon" means ..... (definition to be supplied).		

USA Draft Treaty	Agreed Text	USSR Draft Treaty
		Article IV: 1. Any Party may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments, which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one third or more of the Parties, the Depositary Governments shall convene a conference, to which they shall invite all the Parties, to consider such amendment. 2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all Parties possessing nuclear weapons. The amendment shall enter into force for all Parties upon the deposit of instruments of ratification by a majority of all the Parties, including the instruments of ratification of all Parties possessing nuclear weapons.
Article V: This Treaty shall be open to all States for signature. Any State which does not sign this Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time. 2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the		Article V: 1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time. 2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of ....., which are hereby designated the Depositary Governments.

USA Draft Treaty	Agreed Text	USSR Draft Treaty
United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics, and the United States of America, which are hereby designated the Depositary Governments.		
3. This Treaty shall enter into force on the deposit of instruments of ratification by _____ (a certain number of) governments, including those of the United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics, and the United States of America.		3. This Treaty shall enter into force after its ratification by all Parties possessing nuclear weapons and the deposit of their instruments of ratification.
4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.		4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.
5. The Depositary Governments shall promptly inform all signatory and acceding states of the date of each signature, the date of deposit of each instrument of ratification of and accession to this Treaty, and the date of its entry into force.		5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of or accession to this Treaty, the date of its entry into force, and the date of receipt of any requests for conferences or other notices.
6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.		6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

USA Draft Treaty	Agreed Text	USSR Draft Treaty
Article VI: 1. This Treaty shall remain in force indefinitely subject to the right of any Party to the Treaty to withdraw from the Treaty if it decides that extraordinary events related to the subject matter of the Treaty have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other signatory and acceding States and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests. 2. _____ years after the entry into force of this Treaty, a conference of parties may be held at a date and place to be fixed by agreement of two-thirds of the parties in order to review the operation of the Treaty.		Article VI: This Treaty shall be of unlimited duration. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty three months in advance.
Article VII: This Treaty, of which the Chinese, English, French, Russian, and Spanish texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.		Article VII: This Treaty, the Russian, English, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

USA Draft Treaty	Agreed Text	USSR Draft Treaty
IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty. DONE in triplicate at the city of _____, the _____ day of _____, one thousand nine hundred and sixty five.		In witness whereof the undersigned, duly authorized, have signed this Treaty. Done in .... copies at the city of ..... on the ..... day of ..... .

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/176
11 August 1966
Original: ENGLISH

UNITED STATES OF AMERICA

Description of a Monitoring System for Shutdown Nuclear Reactors

Script of a Briefing given by a United States Expert to the Members of the Delegations to the ENDC at the United States Mission, August 10, 1966.

INTRODUCTION

Distinguished Delegates: I have been requested to describe to you the system developed within the United States of America for effectively and unobtrusively monitoring a shutdown nuclear reactor and ascertaining that it has not been operated between infrequent periodic inspections. The system I will describe is one which the United States suggests will satisfactorily perform the desired degree of surveillance with a minimum of intrusion.

The monitoring of a shutdown reactor is possible with an inspection system which utilizes a completely passive device, which once installed may remain in place for years, unless removed for an inspection.

Selection of the word "passive" in describing the monitoring system serves primarily to indicate the manner in which the system operates. Passive means that it does not require operation in the sense of moving parts, electronic instrumentation, attachments, and other devices subject to malfunctions which might adversely affect the integrity of the monitoring system. Passive may also properly describe the other advantages of the method, since the entire system is inoffensive, unobtrusive, makes no permanent attachments, nor in any way affects the integrity of future use of the facility.

The reactor monitoring system is based on the ability to detect and measure neutrons generated by an operating reactor. Detection utilizes the effect of a neutron on a material which captures the neutron. The operation of a nuclear reactor generates a tremendous quantity of neutrons in the core. For clarification, slide #1 provides a graphic representation of a fission reaction, with a neutron particle released from the nucleus of an atom, such as Uranium 235. The ragged lines indicate the path of a fast neutron through a moderating material, gradually slowing down to a point where it is captured, in one case by an atom of Uranium 238, which is subsequently altered to Plutonium 239. Another neutron wanders a similar path and is captured by another atom

of Uranium 235, causing it to fission. This generates more neutrons for continuation of the reaction. Into this situation we have introduced a safing wire, or tape, for the purpose of detecting whether there has been any neutron activity. This shows in the upper right hand corner of the slide. A small amount of cobalt in the tape captures some of the neutrons, converting the natural cobalt 59 to cobalt 60. We use cobalt because it is a good material for capturing neutrons. In addition, cobalt 60 has a half life of 5½ years. This means that its emission of high energy gamma rays will not be significantly altered during the periods the tape is apt to be left in place. The telltale gamma rays are the key to this monitoring system. Thus, small quantities of cobalt inserted in a sufficient number of locations can effectively monitor an <u>entire</u> reactor, or any part of it large enough to sustain a nuclear reaction.

The method of fabricating the tape is shown in slide #3. Two cobalt alloyed aluminum wires and two thin tantalum wires are inserted through a stainless steel tube. Only one-tenth percent cobalt in an aluminum alloy is necessary. Note in the slide how the tantalum wire is twisted and looped back on itself. The reason for this is to produce a random configuration of the tantalum wire throughout the length of the tape. The assembly is then rolled and flattened to the thin rectangular shape shown below the tube assembly. Slide #4 illustrates how a complete length of tape is rolled on a cardboard drum for handling and for "fingerprinting", that is, obtaining an x-ray photograph of the tape. Slide #5 is a section of the x-ray taken of the tape as coiled on the drum I have just shown. This x-ray provides the record against which each centimeter of tape can be checked for identity and damage. This image or "fingerprint" illustrates the primary means by which we identify system components and determine any tampering with various parts of the safing system. The stainless jacket has a high melting temperature. The aluminum core has a low melting temperature. The bi-metallic combination of the two provides additional assurance against a successful compromise of the system.

The safing tape may be installed in fuel channels, such as shown in slide #6, core coolant tubes, control rod thimbles, or other penetrations of the reactor core which are an integral part of the reactor. In utilizing the system, the Host Nation will provide a liner tube which will be inserted in agreed upon locations. This liner protects the reactor components from any deleterious effects, such as corrosion from

the safing tape, and also protects the tape from surface contamination, corrosion, or other damage. The end seal connected to the safing tape is illustrated in slide #7. The seal assembly is further shown in the exploded view in slide #8. Here we see an additional protective liner inserted in the host liner tube. It may also be fabricated to have its own unique "fingerprint".

The safing tape is pulled through the aluminum plate and clamped securely in place with a collet or clamp. The plastic cap assembly is then installed over the clamp. Pieces of wire are mixed at random within this plastic cap. Not illustrated is an epoxy sealant which is applied to various parts during the assembly and provides a final seal over the exterior bolt holes and other seal openings. The sealant is also fingerprinted with randomly added lead and metal shavings, pieces of wire and other particles distinctive in size and shape. The finished seal assembly is shown from the front in slide #9 and from an angle in slide #10. The angle photograph is preferred for the fingerprint record of the seal since it provides a perspective view. Slide #11 illustrates the x-ray of the seal assembly and clearly shows the random orientation of the inclusions which identify the seal and the sealant, and facilitates detecting any damage to the seal.

Slide #13 is a view of a reactor face with three seal assemblies in place. A closer view is shown in slide #14, with the exterior safing tape visible between the seal assemblies and then disappearing from view toward the top of the reactor. The external safing tape may be used to secure vital reactor controls, thereby monitoring the operation of these components as well. The exterior safing tape differs from the tape used inside the reactor core in that it contains no cobalt in the tape core and the jacket consists of copper rather than stainless steel. Fully annealed, the copper tape is very pliable and lends itself to the various wrapping and threading operations. Essential to the use of the exterior safing tape is the joining seal, which allows the connexion of tape ends and other junctions, illustration of which are shown in slides #15 and #16. The joint seal is fingerprinted with inclusions in the body of the plastic piece and is sealed with the epoxy sealant.

Installation of a safing tape which protrudes from both ends of the tube or channel through the reactor is quite simple: a seal assembly is attached to each end of the tape. For a reactor, which because of its design permits access only to a single face, a different way to guarantee that the tape remains in the reactor had to be found.

Slide #12 shows this type of reactor and presents a concept in which a control thimble is used. The host liner tube would in this instance be given a more active role. The end to be inserted into the access hole would support a jaw device which when properly installed in the monitoring location would be actuated by the safing tape attached to the jaws to force them to spread and engage in a suitable opening, or aperture, in the reactor structure. The seal assembly would again protect the safing tape to prevent release of the jaws and removal of the monitoring system.

It is expected that a team composed of four competent members, fully familiar with the procedures, will be able to complete a safing installation and record the necessary photographic and x-ray fingerprints in a period of two days to a week. The team would complete indexing and filing of the information taken during the safing installation upon return to their home base. The periodic inspection will probably require a similar period of time, two days, if the inspection proves routine and no major interpretive problems occur.

The method by which the team records a seal installation is illustrated on slide #17. This photograph shows the camera in position to record a perspective view of the seal. The adjustable arm attached to the safing plate allows an exact positioning of the camera, which is critical for the subsequent photographs to be taken on follow-up inspections.

Supplementing the noran photographs is the x-ray picture. Slide #18 illustrates the x-ray tube positioned to x-ray the seal from the side. The portability of the equipment makes it easy to get at various reactor seals.

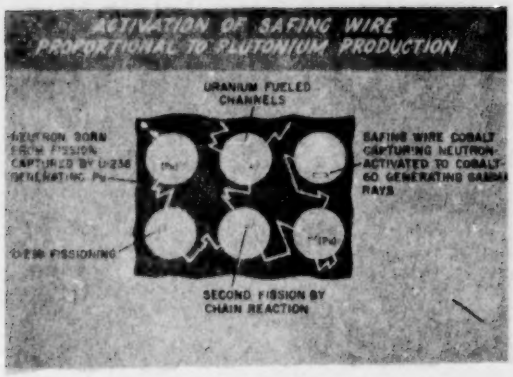
Supplementing the photographic and x-ray equipment is an eddy current probe and recording device which can be utilized to supplement the remaining system with a different inspection tool. The team may on the initial installation make a record of various sections of the safing tape for future comparisons. Slide #19 shows the equipment, and slide #20 illustrates the result of a test performed with this equipment. In the test, a sample of safing tape was x-rayed and checked with the eddy current probe. The line drawn by the eddy current sensor has hardly a ripple in it. The piece of tape was then carefully cut and rejoined by butt welding. The joint was difficult to discern visually. Inspection of the x-ray, however, shows a considerable displacement of the tantalum wire, evidently occurring when the aluminum was partially melted. When the welded section of tape passes through the eddy current probe, it produced a very sharp and detectable signal. This sensitive behaviour has shown up consistently in a number of tests.

The reliability of the system depends on the inspection procedure by which the seal assemblies and other safing components are inspected. The inspection team members would carefully review the photographs and x-rays taken on each visit and compare them with the previously taken record or file copies. The team would utilize overlay techniques to compare photographs and x-ray prints. Projected on the screen are two pictures taken on Polaroid transparancies. In perfect overlay they look like one picture. As one slide is moved in relation to the other, the corresponding similarities stand out for comparison. A similar technique is shown with x-ray prints in overlay and the patterns are seen to compare directly.

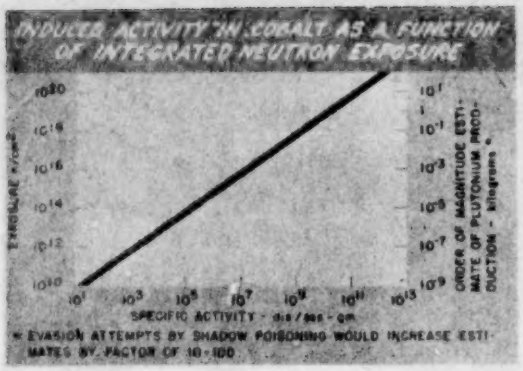
With the field equipment required by the team being easily portable, any view of a seal and any section of the safing tape can be recorded for file information. Subsequent to the initial inspection of the safing installation, the team can select at random one or more of the safing tapes to be removed from the reactor and monitored for neutron activation. The seal is broken off and the collet released. The tape is then withdrawn from the tube liner with a team member carefully monitoring for radio-activity. The tape can then be carefully inspected for any evidence of tampering. The removed tapes will be replaced in the same liner or installed in a new location at the discretion of the inspection team. The replacement safing tape will be sealed and recorded as described earlier.

The presentation which I have made today is, at best, only a brief summary of the concept of the passive safing seal. A complete systems manual has been prepared which fully details the safing concept, materials, their application, and the organization and operation of the international inspection team. These manuals were prepared after the initial development phase was completed and are quite comprehensive. The contents include the scope and intent of the monitoring seal, the nuclear physics involved, a proposed inspection team organization, the procurement specifications of the safing tape and safing seal, and the composition of the inspection team's field equipment. The manual additionally describes installation techniques, photographic and x-ray inspection methods, and the use of other aids, such as the eddy current device to insure backup of the other procedures. The manual will be of considerable assistance to anyone interested in more detail than can be covered in this particular presentation.

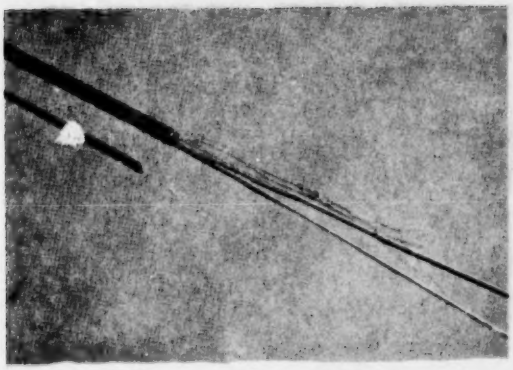
My main concern is that I have conveyed to you a clear picture of how the system functions and the merits of our approach. I will be happy to entertain any questions at this time. Thank you.


ACTIVATION OF SAFING WIRE
PROPORTIONAL TO PLUTONIUM PRODUCTION
URANIUM FUELED CHANNELS
NEUTRON BORN FROM FISSION CAPTURED BY U-238 GENERATING Pu
SAFING WIRE COBALT CAPTURING NEUTRON ACTIVATED TO COBALT-60 GENERATING GAMMA RAYS
U-235 FISSIONING
SECOND FISSION BY CHAIN REACTION

1


INDUCED ACTIVITY IN COBALT AS A FUNCTION OF INTEGRATED NEUTRON EXPOSURE
SPECIFIC ACTIVITY - dis / sec - gm
ORDER OF MAGNITUDE ESTIMATE OF PLUTONIUM PRODUCTION - kilograms
* EVASION ATTEMPTS BY SHADOW POISONING WOULD INCREASE ESTIMATES BY FACTOR OF 10-100

2



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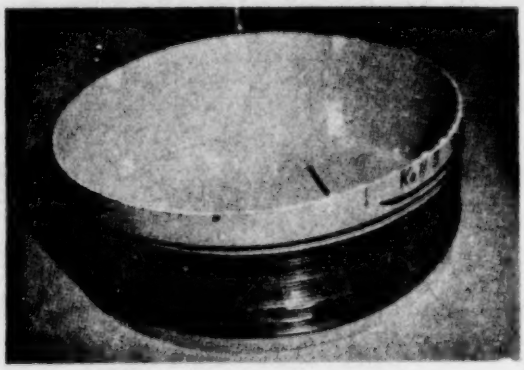
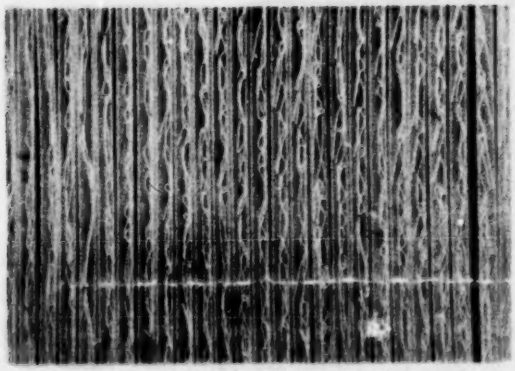


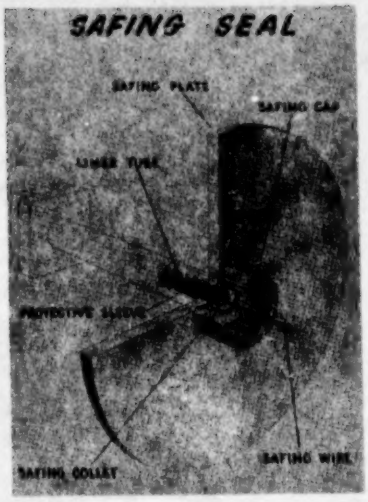
4



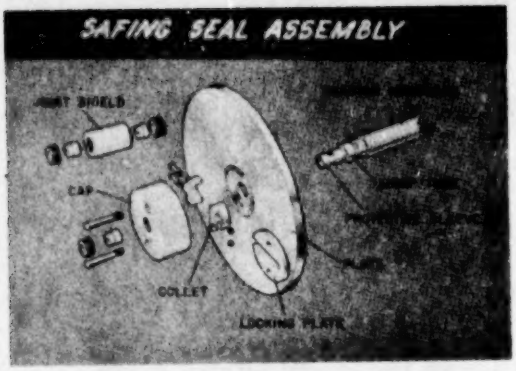
5

TYPICAL INSTALLATION OF SAFING SEAL
SYSTEM ON A REACTOR OF F TYPE

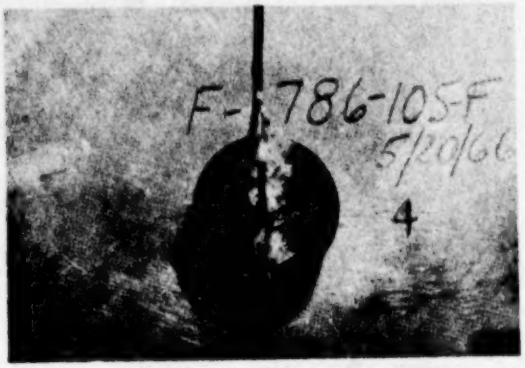
6


SAFING SEAL
SAFING PLATE
SAFING CAP
LINER TUBE
PROTECTIVE SLEEVE
SAFING COLLET
SAFING WIRE

7


SAFING SEAL ASSEMBLY
CAP
COLLET
LOCKING PLATE

8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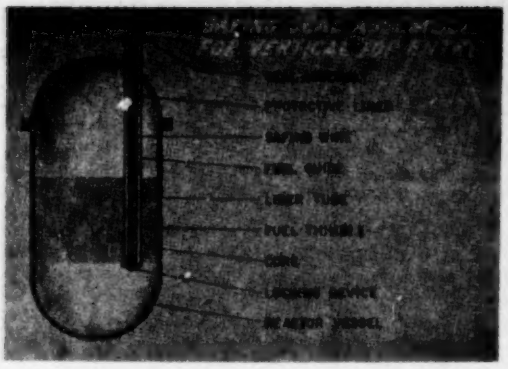
11



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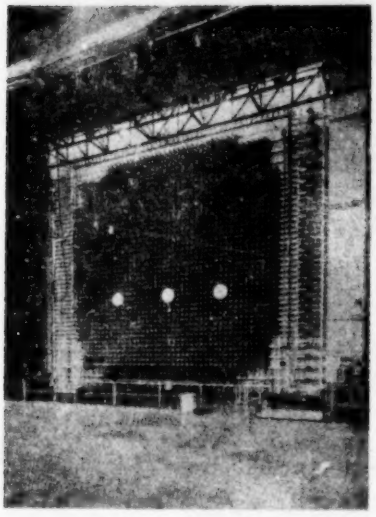

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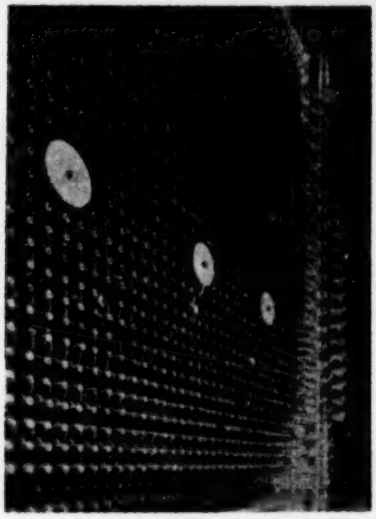

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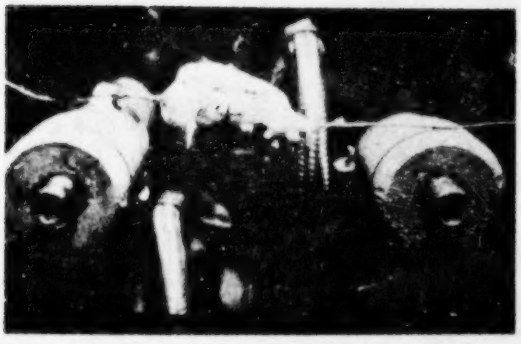

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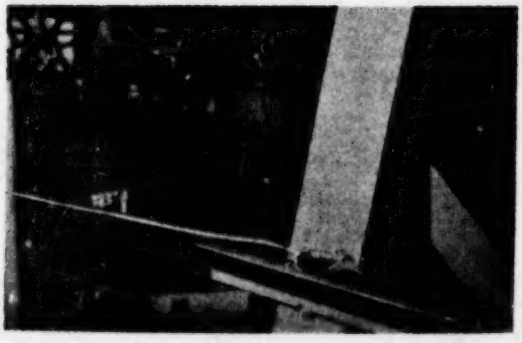

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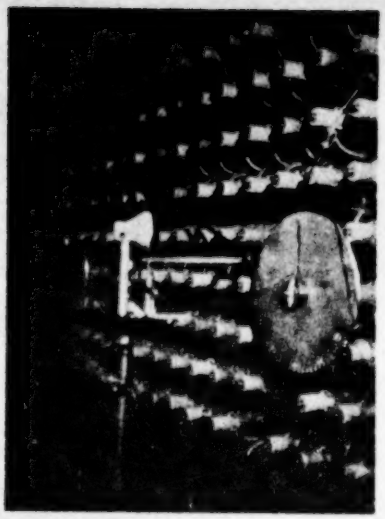

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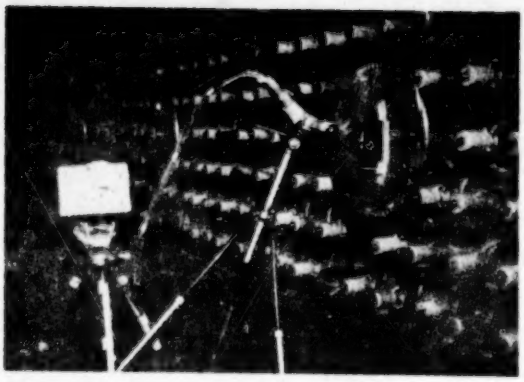

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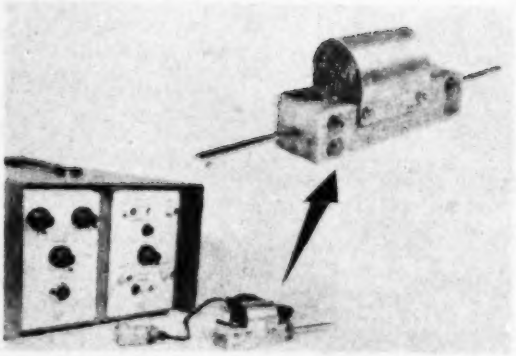

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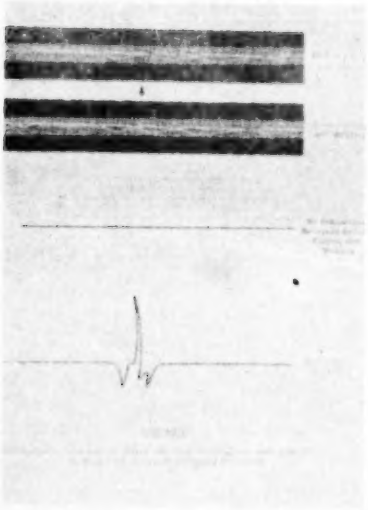

20

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/176/Corr.1
15 August 1966
ENGLISH only

UNITED STATES OF AMERICA

corrigendum to the

Description of a Monitoring System for Shutdown Nuclear Reactors

Page 4, paragraph 4, first line, replace the words: "noram photographs" by the words: "normal photographs".

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66-21117

CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE ON DISARMAMENT

ENDC/177
17 August 1966
Original: ENGLISH

BRAZIL, BURMA, ETHIOPIA, INDIA, MEXICO, NIGERIA, SWEDEN AND THE UNITED ARAB REPUBLIC.

Joint Memorandum on a Comprehensive Test Ban Treaty

Pursuing their efforts of long standing to obtain a cessation of all nuclear weapon tests the delegations of Brazil, Burma, Ethiopia, India, Mexico, Nigeria, Sweden and the United Arab Republic on 15 September 1965 presented a Joint Memorandum on a Comprehensive Test Ban Treaty to the Eighteen Nation Committee on Disarmament.

The General Assembly on 7 December 1965 adopted Resolution 2032 (XX) on the urgent need for suspension of nuclear and thermonuclear tests.

In this Resolution the General Assembly noted with satisfaction the Joint Memorandum submitted by the eight delegations. It expressed its conviction that agreement in regard to taking this further step towards nuclear disarmament would be facilitated, inter alia, by the important improvement made in detection and identification techniques. In its operative part the Resolution urged that all nuclear weapon tests be suspended. It called upon all countries to respect the spirit and provisions of the treaty on banning nuclear weapon tests in the atmosphere, in outer space and under water. It finally requested the Conference of the Eighteen Nation Committee on Disarmament to continue with a sense of urgency its work on a Comprehensive Test Ban Treaty and on arrangements to ban effectively all nuclear weapon tests in all environments, taking into account the improved possibilities for international co-operation in the field of seismic detection, and to report to the General Assembly.

The eight delegations are greatly concerned by the fact that all States have not yet adhered to the Partial Test Ban Treaty, that all nuclear weapon tests have not been suspended and that nuclear tests in the atmosphere and underground are continuing. They trust that the Partial Test Ban Treaty will be adhered to and complied with universally. They have been deeply impressed by the dangers of the continued testing of nuclear weapons in the atmosphere and by the risks inherent in the continued nuclear weapon testing underground, with the resulting development and sophistication

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66-21110

of nuclear weapons. They view with the greatest apprehension that such a development imparts a renewed impetus to the arms race, bringing about unforseeable consequences in regard to imbalance and mistrust in the relationship between States and causing immense and increasing diversion of human and material resources for purposes of war.

The eight delegations stress their strong opinion that a treaty banning underground nuclear weapon tests would in itself constitute an effective measure to prevent the proliferation of nuclear weapons. Such a treaty, supplementing the prohibitions of the Partial Test Ban Treaty, would make practically impossible for a very long time the development of nuclear weapons in non-nuclear-weapon countries, as well as inhibit the further sophistication of nuclear weapons.

The eight delegations, therefore, view with utmost regret that it has not so far been possible to reach agreement on a Comprehensive Test Ban Treaty, which is in the interest of the entire international community.

The eight delegations are conscious of the fact that differences between the nuclear-weapon Powers as to the means of verifying the observance of such a treaty have been an important obstacle to its realization.

For their part, the eight delegations have made sincere efforts, individually offering various ideas and suggestions with a view to facilitating an agreement on the banning of underground tests.

Among these suggestions are

- the idea that underground tests above a certain threshold should be banned by way of a treaty, while, pending the conclusion of a comprehensive treaty, all other underground tests should be suspended,
- the improvement, through international co-operation between national institutions, of the seismic data generally available, so as to create a better scientific basis for the evaluation of seismic events,
- the idea of "verification by challenge", implying a system whereby a party suspected of underground nuclear weapon testing should find it in its interest to provide all available reassuring information, including possibly an invitation for inspection; this system to be related to rules for a possible withdrawal from the treaty if explanations, forthcoming after formal allegations have been made, are not found satisfactory,

- the idea that, in case on-site inspections were agreed upon, a list of impartial inspectors, deposited with the Secretary-General of the United Nations might constitute a useful instrument,
- the idea that an impartial body of scientists, recruited on a personal basis from neutral countries, should be asked to give their opinion on the general problem of identification of underground tests.

The eight delegations believe that the nuclear-weapon Powers should explore the possibility of adopting these suggestions so that a Comprehensive Test Ban Treaty is concluded early. Pending the conclusion of such a treaty, they reaffirm their strong demand that States responsible for nuclear-weapon tests take immediate steps for their discontinuance.